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AUTHOR Brack, R. E.  
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## ABSTRACT

Three evaluation studies are used to illustrate the notion of an eclectic approach to adult education evaluation. The first study, Credit and Non-Credit Offerings in a Federal Penitentiary, evaluated the learning climate in this educational setting using data collected from participating inmates (Questionnaire), non-participating inmates (interests inventory) : educational counselors and teachers and program administrator (interviews), and from Extension Division instructors (narratives). In the second study, Consumer Notes (a weekly television program for homemakers), a telephone survey conducted at the conclusion of the series and questionnaires completed by a panel of 30 homemakers weekly, at 13 weeks, and at the conclusion of the 26-week series were used to obtain evaluation data. Two learning modules, one on soil nutrients and soil testing and the other on communication, were evaluated using three evaluation nodes: reaction panel, Field Test A, and Field Test B. Three constraints which affected the choice of the evaluation strategies were (1) the kinds of questions which the programmer needed to answer, (2) the methods and sources of data collection, and (3) the limitations of resources in terms of time, money, and staff. Examples of evaluation models or elements are given, as follows: (1) Objectives-based evaluation, (2) Context evaluation, (3) Process evaluation, (4) Formative evaluation, and (5) Selection of criteria. (DB)

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AN ECLECTIC APPROACH TO EVALUATION  
STRATEGIES IN ADULT EDUCATION

R.E. Brack  
University of Saskatchewan  
Saskatoon, Canada

Educational accountability has become, within the last few years, a term common to professional educators and the public generally. While the more popular public debate tends to focus on the more formalized school systems, adult education in its many forms has and will come under scrutiny. Is the adult educator ready to respond? Does he have the expertise to be able to supply information to relevant decision-makers about these programs? Are the tools of evaluation available to him? This paper is concerned with demonstrating the more positive side to these questions by describing an eclectic approach to evaluation strategies.

The body of literature on educational evaluation is growing rapidly and is confusing to the uninitiated. In recent years there has been a large number of evaluation models developed and described in the literature. Nearly all of these have grown out of evaluation projects and research centres

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primarily concerned with the evaluation of the primary and secondary school systems. One might dismiss these approaches as being irrelevant if they have not been operationalized in programs similar to the ones we are evaluating. There is a need for adult educators to select elements of these models, modify them, and use them in the contexts of adult education. A single model for evaluating adult education is not likely to emerge. What can and should develop, as is the case with formal education, is a variety of approaches to evaluating adult education that make sense to the practicing adult educator.

While the volume of material available continues to grow, the problems of evaluation don't necessarily ameliorate because of these references. Program decisions are made whether or not reasonable evaluations are conducted. The task, then, is to become familiar with a variety of theoretical models of evaluation and make the appropriate selection and adaptation for the specific evaluation task.

A number of the models of evaluation provide a framework for evaluating total educational systems.<sup>1,2,3</sup> While these are

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<sup>1</sup> Stephen Klein, Gary Fenstermacher, Marvin C. Alkin. The Center's Changing Evaluation Model. Evaluation Comment. Vol. 2 No. 4 The Center for Evaluation, University of California, Los Angeles, 1971.

<sup>2</sup> Robert E. Stake, The Countenance of Educational Evaluation. Teacher's College Record. Vol. 68 No. 7, 1967.

<sup>3</sup> P.K.D. Study Committee on Evaluation. Educational Evaluation and Decision Making. F.E. Peacock Publishers, Inc. Itasca, Ill. 1971.

useful to the evaluator faced with the task of doing a comprehensive evaluation study, they can be bewildering to the practitioner wanting, for example, to determine whether certain instructional strategies are effective in a certain project. The adult educator also has more elusive sources of data than does the formal school evaluator. The learners are usually not sitting in a classroom, but may be at home listening to educational radio or television programs, attending a demonstration and dispersing immediately or some other equally temporary learning situation.

Most adult educators are not content to run projects and wait until outcomes can be observed or measured before doing an evaluation. In fact, many outcomes may not be observable until the operation of the project becomes history. They want to build in formative evaluative strategies. This does not imply that adult educators are unconcerned with outcome evaluation but rather that they need to know whether adjustments in projects should be made before the project ends. Remedial learning situations are not as easy to structure in adult education programs as they are in the formal classroom.

Many adult education projects are developmental in nature and consequently have changing objectives or objectives stated at non-operational levels. The evaluator concerned only with measuring goal attainment will find this situation an incomprehensible one.

The evaluator of adult education programs will find the selection of criteria a major problem. Decision-makers using the evaluative data tend to be non-committal about the criteria they will use in making judgments. Standards are difficult to ascertain.

Stufflebeam et al suggest a number of symptoms of evaluation's illness. Not the least mentioned in the first chapter of their book is the lack of certain crucial elements needed if evaluation is to make significant forward strides.<sup>1</sup>

Not only is the lack of identification of these elements a drawback but so is the extent to which those identified have been operationalized. It is through application that refinement and modification of theoretical models can occur.

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<sup>1</sup> P.K.D. Study Committee on Evaluation. op. cit.

This section of the paper describes three evaluation studies. Each project being evaluated requires different kinds of questions to be answered. The evaluation strategies were designed to provide data that would assist the project directors in making decisions that were imminent.

1. Credit and Non-Credit Offerings in a Federal Penitentiary

The Extension Division of the University of Saskatchewan contracted with the Canadian Penitentiary Services to provide classes in a federal penitentiary. This was the first occasion for the Division to be formally involved in the inmate educational enterprise. Also, this was the first occasion to have formally organized classes offered to inmates and taught by instructors other than educators in the employ of the penitentiary. The major concern of the project supervisor was to evaluate the learning climate of this educational setting. It was decided that relevant information could be obtained from the following groups: participating inmates, non-participating inmates, educational counsellors and teachers of courses within the penitentiary system, instructors of the university courses, and the director of education services for this penitentiary.

For each course held all those who attended were invited to complete a questionnaire reacting to the method of instruction, their perceptions of the instructor, how they felt in these courses, and the level at which the material was taught. The

questionnaire was confidential and turned in directly to the Extension Division staff. In addition, a few inmates communicated directly, either verbally or by letter, to the Extension Division about these courses.

Interviews were conducted with educational counsellors and teachers in the penitentiary to determine their perception of the effect these classes had on participating inmates. The administrator was interviewed to determine the constraints which the Federal Penitentiary System might have on such educational endeavours.

The other inmates not enrolled in these classes were encouraged to complete an inventory of their interests and motives regarding educational courses.

The instructors hired by the Extension Division provided a narrative about their perceptions of what was going on in the classroom.

2. Consumer Notes - a weekly television program for homemakers.

In the spring of 1971 a telephone survey was conducted at the conclusion of a winter's program of Consumer Notes. The primary purpose was to determine the extent to which the program was viewed by homemakers. The study yielded sufficient information which was used to make revisions in the

program. But one of the concerns was to be able to get viewer reaction while the series was in progress so that this feedback could be used in making program improvements. An evaluation design was implemented which made use of a panel of 30 homemakers throughout the seven viewing areas of the province. These women were selected by a contact in each community with an attempt made to have background variables taken into consideration. Each panelist was provided with token remuneration. Following each weekly program each panel member completed a questionnaire and mailed it to the Extension Division. The questionnaire attempted to get information about the panel member's reactions to the quality of the production, the subject matter of the program, and the personalities involved in the program. Also included was a section asking about recall from the previous week's program, if viewed, and whether any use had been made of the information presented in the program. At the mid-way point of the 26-week series and at the conclusion, each panel member completed a questionnaire asking for more general reaction to the series and having them prioritize programs in terms of explicit criteria.

The above procedure was designed primarily to provide for formative evaluation of the series. In addition, a telephone survey was conducted following the conclusion of the series so that comparisons could be made with the results of the survey conducted the year previously.

### 3. The Production of a Learning Module

The Extension Division produces learning modules in a variety of subject matter areas. The presentation of the material may be on slide-tape, on video tape, on 16mm film, overhead transparencies, or combinations of these. During the past year two of these programs were evaluated. One was on soil nutrients and soil testing presented on videotape. The other was on communication and was presented through the medium of three slide projectors synchronized with cassette tape.

The production of a learning module from conception to the final product requires some mechanisms which provide for adaptations in the module during production. The formative evaluation strategies need to be recognized by all those involved in producing the module (the content specialist, the media specialist, the adult educator). It seemed unreasonable to expect those producing the learning module to revise continuously without sufficient data to make the decision for revision. The following model provides the basis for evaluating learning modules.

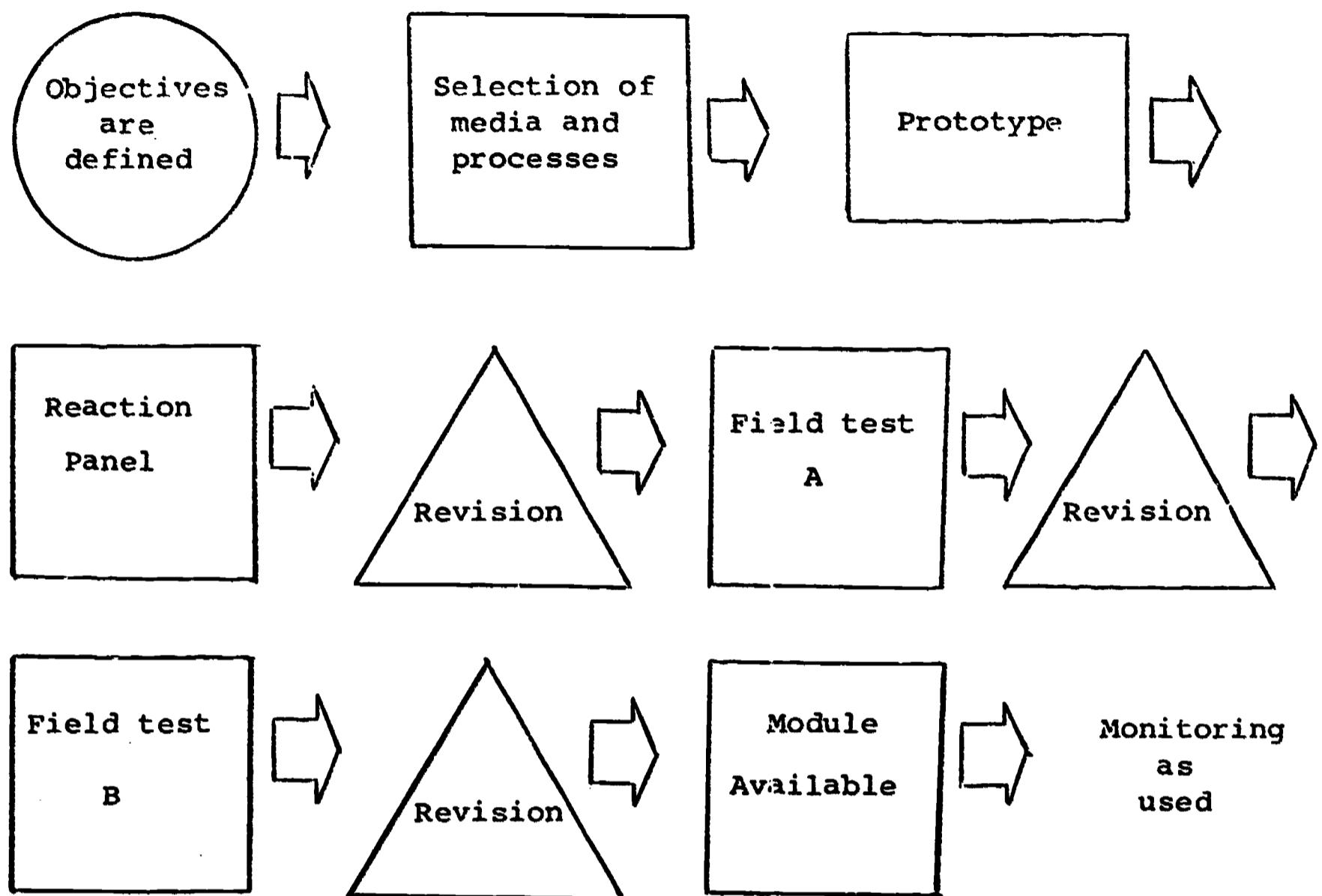


Figure 1. A representation of the evaluation strategy used for learning modules.

There are three evaluation nodes in this model:

1. Reaction panel - When a module reaches a stage where both content and process have been put together (normally not in a form that has reached any final decisions) a reaction panel is selected to be exposed to the module. The panelists are normally other members of faculty and should have representation

from both content and educational process.

Suggestions for revision are recorded. Usually the people producing the package are present at the showing and can receive the information directly.

2. Field Test A - This is conducted under selected circumstances. The participants recognize they are involved in a "first run." They should be reasonably representative of the type of audience for which the module is produced. Data are collected about the reactions to the learning process they are experiencing as well as the extent to which the learning objectives are reached. These are used as a basis for further revision to the module.
3. Field Test B - The module is used under field conditions. Pre and post tests are administered to determine change in behavior. Items in the testing instrument for which expected outcomes are not evident are noted so that changes in that section of the module can be made.

### The Selection and Application of Evaluation Strategies

The three evaluation studies described in this paper will be used to illustrate the notion of an eclectic approach to evaluation.

The evaluator, in making decisions about the design of the study, has several constraints which, in a sense, provide the limitations in choosing an appropriate design. Three of these which were in effect in choosing strategies for the three studies reported here are as follows:

1. The kinds of questions which the programmer needed to answer. In the penitentiary project, for example, the concern was centred around the extent to which the environment in which the inmates were studying interfered with a good adult learning climate. On the other hand, the primary concern in the evaluation of learning modules was to what extent the learning package was reaching its stated objectives.
2. The methods and sources of data collection. One might feel that having framed the appropriate questions for the study one should select the obvious method of data collection and sources of data, but this is not always possible. In the penitentiary

project, it was a deliberate decision not to collect data about the non-credit classes through tests or exams. In the television project, it was not possible to interview people on a weekly basis although that method of data collection may have yielded more qualitative data for program revision purposes.

3. The limitations of resources in terms of time, money, and staff. Most adult educators find themselves wanting to evaluate projects with a severe time constraint. We had to know whether to continue the offering of educational programs in the penitentiary the following year almost at the same time as the current courses concluded. Typical of most practitioners, the funds available to evaluate projects in the Extension Division are often not included in budgets. In the case of the television project and the learning modules, no evaluation budget was specified and therefore operated under ad hoc arrangements for financing. The penitentiary project did have a budgeted item for evaluation. The expertise of staff offers further limitations. One tends to select strategies which are familiar and can be operationalized without hiring consultants.

These three constraints, then, are used for screening models or elements of models in building an appropriate evaluation design.

Some Examples of Selection of Models or Elements

1. Objectives-based evaluation

The Tylerian congruence model is used in the final stages of evaluation of learning modules. It is at these stages where objectives are explicated in specific behavioral terms and data are collected from learners to determine to what degree these objectives are reached.

2. Context evaluation

The context dimension of the CIPP model<sup>1</sup> was the major source for designing the evaluation for the penitentiary project. Perhaps, more specifically, the congruence element of context evaluation (comparing actual and intended system performance) was used, although the contingency mode (searching for opportunities and pressures outside the system to promote improvement within it) helped us in determining additional sources of information.

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<sup>1</sup>P.K.D. Study Committee on Evaluation. op. cit. pp.218-220.

### 3. Process evaluation

The monitoring of the Consumer Television Series and the ongoing classes in the penitentiary fall into the process evaluation mode. The two models providing assistance in designing the strategy for these concerns were the process element of the CIPP model<sup>1</sup> and the transactions element of the Stake model.<sup>2</sup>

### 4. Formative evaluation

Formative evaluation as outlined by Scriven<sup>3</sup> was of primary consideration in all three evaluation studies. In the penitentiary project we were looking for data to use immediately in making judgments about course content, in-class strategies, and administrative arrangements. The weekly mail-in reaction sheets from the panelists in the consumer television series were used in making decisions about upcoming programs. The need for reactive data for use in developmental stages of replicated forms of learning experiences is obvious. This is the reason for having at least three evaluation nodes in the evaluation design for learning modules.

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<sup>1</sup>P.K.D. Study Committee on Evaluation, op.cit. pp. 229-232.

<sup>2</sup>Stake, op. cit.

<sup>3</sup>Michael Scriven. "The Methodology of Evaluation." AERA Monograph Series on Curriculum Evaluation No. 1. Rand-McNally, Chicago, 1967.

### 5. Selection of criteria

The judgment matrix of Stake's model<sup>1</sup> provides a basis for collecting data about standards and criteria. In the penitentiary project the interviews with the Director of Education, the school counsellors, and the report forms from instructors all yielded data for generating criteria.

The first reaction panel in the learning module evaluation project is generally a rich source of standards and criteria for that particular module.

The foregoing examples illustrate the versatility of various models of evaluation if one chooses to be eclectic. The selection of various elements from models is not always a conscious decision. However, it is reasonable to suggest that one is more likely to develop more rational approaches to evaluation design when a variety of alternatives are considered than when one forces all evaluation projects into a favored mode of evaluating.

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<sup>1</sup>Stake, op. cit. p. 49.